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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,501	09/13/2004	Akihiro Kuroda	016912-0209	6483
22428	7590	10/06/2006	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			SOROUSH, LAYLA	
			ART UNIT	PAPER NUMBER
			1617	

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/507,501	KURODA, AKIHIRO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Layla Soroush	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

The response filed June 28, 2006 presents remarks and arguments submitted to the office action mailed February 28, 2006 is acknowledged.

Applicant's amendments submitted June 28, 2006 is acknowledged wherein claims 1-16 are amended and claims 17-20 have been added.

Examiner has inadvertently cited the US Publication no. 20030082218 in rejecting the claims of the instant invention. Therefore, the rejection over Ichinohe et al. (US Publication no. 20030082218) are herewith withdrawn and the following new rejections have been made over Ichinohe et al. (WO 02/03928) (translation: US Publication no. 20030082218).

Applicant's arguments over the 35 U.S.C. 112, second paragraph rejection of Claim 1 and 15 are persuasive due to amendment of claims. Therefore, the rejection is herewith withdrawn.

Applicant's remarks and arguments over the 35 U.S.C. 103 (a) rejection of Ichinohe et al., claims 1,3-10, 12, 14-16 have been taken into consideration. Applicant's arguments with respect to claims 1,3-10, 12, 14-16 have been considered but are moot in view of the new ground(s) of rejection.

See the rejections as stated below:

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-10, 12, 14-15, and 16 are rejected under 35 U.S.C. 103(a) as being obvious over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1) in view of Yonekura et al. (US Pat. No. 4,892,726) and Wada et al. (US Pat No. 6,534,044).

Ichinohe et al. teaches in Example 11, a dimethylpolysiloxane in 24 weight % at 6 mm<sup>2</sup>/sec at 25 C (non-volatile oil agents of instant claims 1a and 5), a trimethylsiloxysilicate in 1 weight % (oil soluble silicone of instant claims 1c and 8), 1,3-butylene glycol in 2.0 weight of the composition % (a volatile solvent and a lower alcohol of instant claims 1d and 9; a polyhydric alcohol), a polyether modified silicon (recited in claim 3), and purified water (recited in claim 4). Pigments are also taught as components in the composition (recited in claim 1e in part).

Further, Ichinohe et al. teaches examples of organic powders used in the composition include polymethylsilsesquioxane (water-repellent powders, of instant claims 1b and 6). The amount of the said component in the cosmetic composition ranges from 0.1- 99-weight % to total cosmetic material (page 4, left column, lines 1-15 from top and lines 52-63 from top). Additionally, examples of inorganic powders such as titanium oxide, zinc oxide, and cerium oxide are taught as components of the cosmetic composition. The inorganic and organic powders are formed into complexes or treated with general oils, silicone oils, etc. (page 4, left column lines 1-10 from bottom of page)). Further, Ichinohe et al. teaches that any powder can be mixed into the

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composition regardless of shape, size, and structure as long as they have hitherto been used in conventional cosmetic materials. The amount of the said components in the cosmetic composition ranges from 0.1- 99 weight % to total cosmetic material (page 3, right column, last 3 paragraphs in entirety and page 4, left column, last paragraph in entirety) (water-repellent surface treated pigment, of instant claims 1e (in part) and 10).

Although, the reference does teach the use of polymethylsilsesquioxane as a component in the cosmetic composition, the reference does not selectively use polymethylsilsesquioxane as a component of the composition of example 11.

Yonekura et al. teaches the use of polymethylsilsesquioxane powders as a component of makeup or cosmetic compositions. Additionally the reference teaches the polymethylsilsesquioxane powders and other cosmetic powdery raw material in cosmetic binder oils. Cosmetic powder raw material include pigments such as zinc, silica, and titanium. Yonekura et al. teaches that the composition may include water, surface active agents, perfume, thickeners, and antiseptics.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the silicon resin polymethylsilsesquioxane into the cosmetic composition because Ichinohe et al. teaches the use of polymethylsilsesquioxane in the cosmetic and Yonekura et al. teaches the use of polymethylsilsesquioxane in a cosmetic. The motivation to incorporate the silicon resin polymethylsilsesquioxane in the cosmetic composition is because both references teach the polymethylsilsesquioxane in a cosmetic composition and more specifically, because Yonekura et al. teaches that the polymethylsilsesquioxane powders have "excellent effects of natural color and

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smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10). Therefore, a skilled artisan would have reasonable expectation of successfully producing a similar composition with "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10).

Although, both references do teach the use of pigments in the cosmetic compositions, neither specifically teach the use of surface treated pigments.

Wada et al. teaches a cosmetic material comprising silica coated metal oxide particle further surface treated with a hydrophobizing agent. The metal oxide particles include titanium oxide, zinc oxide, cerium oxide, zirconium oxide, and iron oxide. The surface coated metal oxide particles have a primary particle size of 5-120 nm. The metal oxide particles coated with silica (column 3 lines 39-47) are further coated with a hydrophobizing agent (column 49, claim 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the surface-hydrophobicized silica-coated metal oxide particle into the cosmetic composition because Ichinohe et al. teaches the use of metal oxides in the cosmetic. The motivation to incorporate the surface-hydrophobicized silica-coated metal oxide particle in the cosmetic composition is because Wada et al. teaches the surface-hydrophobicized silica-coated metal oxide particle have (1) excellent

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properties such as suppression of photocatalytic activity (2) “an excellent feel during use,” (3) “improvement in the particle fineness and dispersion properties,” “(4) low phototoxicity” (5) excellent storage stability (6) satisfactory surface properties (moistness, smoothness) when added to cosmetics and (7) high contouring properties (column 1 lines 30-36, column 2 lines 40-45, 63-68, and column 9 lines 20-25).

Therefore, a skilled artisan would have reasonable expectation of successfully producing a similar composition with (1) excellent properties such as suppression of photocatalytic activity (2) “an excellent feel during use,” (3) “improvement in the particle fineness and dispersion properties,” “low phototoxicity” (4) excellent storage stability and (5) high contouring properties.

Claims 7 and 12 are product by process claims. It is well settled in patent law that product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP § 2123. The court in In re Thorpe held, “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the method of making the composition as claimed does not render structural limitations to the claimed composition. Thus, the processes are not given patentable weight. In claim 7, the formulation of the water-repellent resin powder “in a form of being kneaded with an oil

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agent, finely crushed by a crusher, or dispersed in water” is not given patentable weight.

Also, in claim 12 the formulation “in a mechanically ground form in advance or at the time of production of the cosmetic product” is not given weight.

Ichinohe et al. do not expressively teach the term “water-runability,” as recited in claim 14. However, the reference teaches that the composition has a “strong repellency to sweat and water.” This is viewed equivalent or similar to the recited property of the cosmetic composition, as recited in claim 14.

Also, the method of imparting water-runability on the skin or hair, as recited in claim 16-20, is viewed obvious because the reference teaches the moisture resistant property and its use on the skin or hair (see page 2, left column, last paragraph in entirety). In the examiners view, the “water-runability” property of the claimed cosmetic composition and its use are equivalent to that of the reference composition. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use the cosmetic composition taught in the prior art with the expectation of successfully producing a similar cosmetic composition with the resulting water-runability and usability properties.

Ichinohe et al. does not specifically teach the coated portion having “three or more of protruding portions having a height of 0.2 um or more per 10 um-length,” as recited in claim 15. However, Ichinohe et al. teaches the composition as claimed and therefore the properties of such a claimed composition are viewed obvious. The cosmetic composition requires the same components and the physical properties of the cosmetic composition will therefore be identical. A physical property is inseparable from



its composition and because prior art teaches the cosmetic composition, then the properties are also taught by the prior art (In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) See MPEP 2112.01).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. (US Publication no. 20030082218A1), as applied to claims 1, 3-10, 14-15, and 16 as above and further in view of Fukuchi (English translation, JP 01211518 A).

Ichinohe et al. does not teach the use of a highly polymerized silicone but does teach the use of a one-end hydrogensiloxane (see page 6 right column text and structural formula) as a component in the cosmetic composition.

Fukuchi teaches the use of a polysilicone of the general Formula I in a hair cosmetic composition. Formula I comprises R1 representing a methyl group or phenyl group and R2 represents a methyl group or hydroxyl group (n represents integer of 3,000-20,000) (see page 1, right paragraph, structural formula I). The reference teaches that the ingredients provide "luster and silkiness onto the hair," "excellent conditioning effects," and sustains these effects over "relatively long periods" (see English translation page 2, bullet 3 lines 1-4).

Both Ichinohe et al. and Fukuchi teach compositions directed to hair compositions. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the composition of Ichinohe et al. by adding to the composition the polysilicone of Formula I in Fukuchi. The modification would have been motivated by the teaching in Fukuchi that the polysilicone of Formula I will provide a sustained luster, silkiness, and excellent conditioning effects on the hair. The skilled

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artisan would have had a reasonable expectation of successfully producing a stable and effective hair cosmetic composition with good moisture resistancy and conditioning effects, because both Ichinohe et al. and Fukuchi teach similar formulations (e.g., hair, creams, emulsions comprising volatile oils, etc.).

Claims 11 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. (US Publication no. 20030082218A1), as applied to claims 1, 3-10, 14 - 15 and 16 as above, and further in view of Hayashi et al. (English translation, JP 2000327948A).

Ichinohe et al. does not teach the water-repellent surface treated pigment coated with silica, alumina, or zirconia, and also does not teach the water-repellent surface treated pigment further subjected to water repellent surface treatment.

However, Hayashi et al. does teach the use of a metal compound powder having a metal compound particle on the surface of the metallic oxide or hydroxide particle in a cosmetic composition (see English translation [0002]). Further, Hayashi et al. teaches the powder coated with organosilane (see page 4/55, heading [Problem to Be Solved], lines 1-13]). Also, the composition is taught to have "outstanding hydrophobic property" (see [0001]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the Ichinohe composition by incorporating the water repellent surface treated pigment component as motivated by Hayashi et al., because the latter teaches that the coated metal compounds have good hydrophobic properties

and are used in cosmetics. Therefore, the skilled artisan would have had a reasonable expectation that the composition would yield a strong water repellency property.


**Conclusion**

No Claims are allowed.

**Any inquiry concerning this communication or earlier communications from the examiner should be directed to Layla Soroush whose telephone number is (571)272-5008. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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